Minnesota Department of Transportation



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Office of the Secretary Federal Communications Commission Washington, D.C. 20554

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SUBJECT:

ET Docket No. 95-18

Reply to COMSATs Supplemental Comments

Dear Secretary:

The State of Minnesota would like to formally object to the proposed relocation plan developed and submitted by COMSAT in their April 17, 1996, reply comments regarding allocation of spectrum for Mobile-Satellite Service. COMSATs claim that their proposal properly safeguards the Fixed Service (FS) licensees' interests is false. This letter addresses the concerns of the State of Minnesota in three ways. First, the technical limitations of their proposal will be discussed. Second, the financial implications for Governmental agencies with statewide applications will be shown. Finally, the impact on public safety systems and services will be addressed.

You will find that these three issues clearly show that the COMSAT proposal for coprimary operation and gradual transition of FS users to other spectrum is not fair to existing FS licensees. The COMSAT proposal jeopardizes existing State microwave systems used to support public safety users. It also places an overwhelming financial burden on already limited State and local financial resources.

TECHNICAL LIMITATIONS:

The COMSAT relocation plan calls for sharing and transition of FS users in the 2160-2200 MHZ band. All of the existing State microwave systems occupy this band (between 2181-2198 MHZ) on the high frequency end of the link. These same paths occupy the band which includes 2131-2148 MHZ on the low end of the link. The State is not able to relocate these links without replacement of both ends of the link.

All of the systems in place have loading requirements between 24 to 96 channels. No equipment is available to support this low channel capacity, other than in these 2 GHz bands. FCC rules section 101 places minimum loading requirements on systems that prohibit use of equipment in other bands that are not designed for channel capacities of this size. The minimum loading capacity for 6 GHz analog radios is 120 channels. Use of this equipment would be spectrally inefficient and would violate part 101 rules.

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The COMSAT proposal would move the BAS licensees into our lower 2 GHz spectrum band (2131-2148 MHZ). There are no provisions for the MSS providers to assure that the concerns of existing FS users are dealt with during that move. The MSS providers have doubled the complexity and cost of the relocation process by displacing both the BAS and FS users.

Interference is one area acknowledged as a concern by COMSAT. However, there are no guidelines established for resolution of interference problems. Negotiations are suggested as a course of action for existing FS licensees, but the implication of the COMSAT proposal places the responsibility for resolution of interference problems on the FS users. Their inference to the use of space diversity antennas also demonstrates this point. Is the State responsible for paying for additional equipment in order to resolve interference problems associated with sharing spectrum we currently occupy? The MSS operators should have to abide by the same requirements as set forth in other services. The licensee causing interference should be responsible for paying to resolve the problem.

FINANCIAL IMPACT:

COMSAT claims that their proposal is fair and accommodates the needs of existing FS users through shared co-primary use and gradual replacement cycles. This is not true. The FS users gain absolutely no benefit from the new MSS market development. Yet, We are expected to accept the financial burden for clearing spectrum for the MSS providers.

The State of Minnesota currently operates a statewide microwave network made up of seventy 2 GHz microwave links. Of these 70 links, 21 use hot stand-by equipment. The States replacement cost for these systems would be \$ 8 million dollars. This number is based on replacement of the current system with the closest available 6 GHz analog radios, antennas. and waveguide.

COMSAT falsely assumes that amortizing existing equipment through 2005 will provide existing users the payback required on their investment. This is not the case. Most of the communications infrastructure used by the State has been in place for less than 10 years. 30 year equipment life cycles are not uncommon for these systems. At current State funding levels it would take over 20 years to replace this equipment. This would allow for absolutely no other communications system replacements, such as mobiles, portables, consoles, or base stations. This is a totally unrealistic expectation. Having State agencies accept the burden for this replacement, when no benefit is gained by them for this relocation, is unacceptable.

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PUBLIC SERVICE:

The State is responsible for assuring the safety of its citizens. The integrity of the statewide communications network is an indispensable tool used by a number of agencies in assuring that public safety. The Commission has had a long standing position of respecting that public trust by providing spectrum, licencing, and rule making that recognizes public safeties special needs.

I urge the FCC to continue their support of public safety users by limiting action on microwave frequency relocation until a suitable home can be found for existing users. The relocation must assure that any relocation can be actionable, with equipment suited for the needs of these special users.

The MSS providers, and COMSAT in particular, will derive the benefit of the relocation being proposed. The existing FS licensees, and the State of Minnesota, are being asked to dedicate substantial amounts of resources both in time, personnel, and money, to the relocation effort. Yet, we receive none of the pay back. It is obvious by recent auction results that there is great value to PCS and MSS providers for this spectrum. They, in turn, should be required to pay for the relocation of existing users to vacate the spectrum.

Because of the public safety, financial, and technical obstacles present in the COMSAT proposal, the Commission should not support the proposal. Their proposal does not safeguard the Fixed Service (FS) licensees. We ask that the Commission please consider these points when determining your course of action regarding this issue.

Sincerely,

Samuel F. Gargaro, Director

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